

Appendix G

Drying Techniques for Water-Damaged Books and Records

Technique	Procedure	Speed	Direct Cost	Staff & Labor	Availability	Results
Air Drying	Items dried by circulating air in a low-temperature, low-humidity space	Days or weeks	Negligible	High	Very good	<ul style="list-style-type: none"> • swelling • cockling • blocking • inks running • mold threat
Dehumidification	Large, commercial dehumidifiers installed to dry building, furnishings, and collections <u>in situ</u>	Varies		Low	Good	<ul style="list-style-type: none"> • limited cockling, if used only on damp items
Freezer Drying	Items placed in self-defrosting freezer (under 10 degrees F) are frozen, then ice is slowly sublimated	Weeks or months	Negligible (if done at home)	Moderate	Very good	<ul style="list-style-type: none"> • swelling • blocking
Vacuum Thermal Drying	Items placed in chamber; vacuum drawn; heat introduced to melt and/or "boil out" water	4-6 weeks per load	\$3-5 per volume	Low	Good	<ul style="list-style-type: none"> • Potential • swelling • cockling • inks running • blocking • damage to film media
Vacuum Freeze Drying	Frozen items placed in chamber; vacuum drawn; small amount of heat introduced (below 32 degrees F); ice crystals drawn out by sublimation	1-2 weeks per load		Low	Good	<ul style="list-style-type: none"> • leather and vellum may warp • photos may lose gloss

Excerpted from Southeastern Library Network's *Drying Techniques for Water-Damaged Books and Records*. Atlanta: Southeastern Library Network, no date. Available at http://www.solinet.net/preservation/preservation_templ.cfm?doc_id=115. (Accessed 10 March, 2003). Used with permission.